

Jerry E. Dunmire

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PROFESSIONAL SUMMARY:

Hands-on engineering manager and systems engineer experienced in the embedded systems, GPS, semiconductor, medical instrument, and industrial control industries.

- Strong project design, scheduling and management skills with emphasis on electronics and software integration for embedded systems.
- Experienced in the effective use of UNIX/Linux, GNU, and open-source software for embedded systems development.
- Extensive experience developing successful engineering teams, designing architectures, and delivering products.
- Advocate of software engineering documentation and methodologies for embedded and real-time systems.
- Skilled at quickly assimilating and applying new technology and methods.
- Adept at translating highly technical content to a non-technical audience.

PROFESSIONAL EXPERIENCE:

9/04 – Manager, Software Development, Pioneer Research Center, USA, Inc., San Jose, CA

Led a small group that was responsible for developing and supporting wide range of tools and services including:

- Source code management using Subversion (SVN), including education and automation assistance to development teams.
- An automated build and test system supporting both native and cross-compiled targets.
- Target support packages based on GNU tools, Busybox, and vendor supplied libraries and source code.
- Release configuration and management.
- Release installation tools for developers, manufacturing, and end users.
- Prototype life-cycle management and support.
- Encryption/Decryption key management for end user releases and Bluray content protection.

1/03 – 8/04 Independent Contracting

Developed PIC based sensor and control boards, lectured at the University of the Pacific, developed and deployed WiFi hotspots and ported video playback software to PDAs and cell-phones.

3/98 – 12/02 Project Manager, Trimble Navigation, Ltd. Sunnyvale, CA

Developed real-time, embedded firmware for GPS receivers in C and assembly for both proprietary kernel and real-time Linux OS. Hands-on management of a small group of developers.

- Turned around a floundering software development project for a new optical surveying product. Established clear requirements and schedules. Assembled and lead a development team that met the schedules, including innovative solutions to meet regulatory requirements discovered just five weeks before first shipment.
- Developed and introduced two new GPS receivers for high-precision surveying systems for worldwide use.
- Reduced development costs by transitioning from HP/UX and proprietary C/C++ compilers to Linux and GNU tools.
- Reduced the development time for new GPS firmware by combining diverging source trees and centralizing defect tracking.
- Rebuilt the GPS firmware development group after departures to startups.
- Introduced RT-Linux as a target environment for GPS receivers.

4/97 – 3/98 Program Manager, FlashPoint Technology, Inc., San Jose, CA

- Coordinated development and delivery schedules for the first customer integration of FlashPoint's operating system for digital cameras.
- Developed and communicated strategies to help the customer cope with delays in the delivery schedule.
- Built a team to provide rapid testing and quality evaluations of the operating system before delivery to the critically important first customer.

4/89 - 4/97 Program Manager, Kesa Corporation, Santa Clara, CA

- Negotiated customer specifications, schedules, and contracts for the design and prototype of embedded, real-time consumer, industrial, and medical systems. Staffed and led project teams and coordinated communications with customers. Completed projects resulted in a 300% growth in company revenue.
- Championed architecture and system designs to optimize customer satisfaction and project schedules, allowing Kesa to be profitable and grow in a fixed-price-contracting environment.
- Developed and implemented methodologies appropriate for a fast-paced, project-oriented environment that met FDA instrument design requirements.
- Implemented cross-platform development environments, including configuration management and revision control systems, to support high quality, on-time delivery of software. These systems and methodologies enabled Kesa to compress multiple-person-year projects into a few months and obtain contracts that competitors could not handle.

11/87 - 4/89 Electrical and Software Engineering Manager, Bionovus, Inc., Foster City, CA

- Established and staffed the electrical and software engineering department in a biotechnology startup. The department was charged with designing production instruments based on demonstration prototypes.
- Fostered relationships with the third party development group for the completion, testing, and documentation of the prototypes.

- Managed downsizing when fundamental technology problems prevented transition to mass production.

7/84 - 11/87 Engineering Manager, Focus Semiconductor Systems, Inc., Sunnyvale, CA

- Architected the electronics and software control system for a new automated semiconductor CVD system, including motion control servos, user interface, and distributed measurement and control subsystems. Cited by customers as an example of the flexibility and power they desired in all of their semiconductor processing equipment.
- Initiated and managed engineering and manufacturing operations to design and manufacture electronics and software components. Product delivered on time and on budget.
- Established an integrated computing environment for the company that improved productivity, communications, and disaster recovery.

2/83 - 6/84 Senior Software Engineer, Genus, Inc. Mt. View, CA

- Designed and implemented first SEMI SECS driver for Fluke 1722 computer.
- Championed and installed the first UNIX computer system for software development and configuration control.
- Developed prototype software, hardware, and measurement systems to support research into advanced wafer heating technologies.

5/79 - 1/83 R&D Engineer, Varian Associates, Palo Alto, CA

- Championed and implemented the first touch-screen based semiconductor processing equipment at Varian.
- Architected and implemented the interprocessor communications using industry standards.
- Transferred the product to manufacturing and managed complex customer relations at the initial installations. This equipment has remained profitable and in-demand for over 17 years.
- Collaborated in the development of the SEMI SECS-II communications standard used by wafer processing equipment in facilities around the world.

SKILLS SUMMARY:

Languages: GNU-Make, Bash/Korn/Bourne Shell, C/C++, Assembly, HTML, tcl/tk, Perl, AWK.

Operating Systems: Linux, RT-Linux, UNIX, PalmOS, HPUX, SMX, VRTX, proprietary RTOS, Windows 95/98/NT/ME/XP, MS-DOS.

Microprocessors: MIPS, PPC-8xx, PIC, 68HC11, 683xx, NEC-V25, Motorola DSP56000, x86, Z-80, 6800.

Applications: OpenOffice, Subversion, MS-Project, MS-Word, PowerPoint, X-Windows, GNU, CVS, DHCP, DNS, HTTPD, NFS, TestTrack.

Formal Design Methodologies: OMT-Rumbaugh, Ward-Mellor, Warner-Orr.

EDUCATION:

BS with High Honors in Electrical Engineering, 1979, University of the Pacific, Stockton, CA

Outstanding Graduating Senior of the School of Engineering, Phi Kappa Phi Honor Society

ISO-9000 Quality Standards Implementation - TQM-408, 1994, San Jose State University, San Jose, CA

RELATED ACTIVITIES:

Author of SBScoring- a PalmOS program that simplifies the calculation of springboard diving scores.

Member of IEEE.